

COUNTY OF YORK, VIRGINIA  
INVITATION FOR BIDS (IFB)

Issue Date: July 15, 2003

IFB #: 1337

Title: Retrofit Cooling Tower Variable Speed Drives at Various Schools

Classification Code: 03128/91036

Issuing Agency:

County of York, Virginia

Central Purchasing

120 Alexander Hamilton Blvd./P.O. Box 532

Yorktown, Virginia 23690

Using Agency And/Or Location

County School Board of York County, Virginia

Where Work Will Be Performed:

School Maintenance

505 Cook Road

Yorktown, Virginia 23690

Sealed Bids Will Be Received Until 4:00 P.M. on Tuesday, August 5, 2003 At Which Time They Shall Be Opened In Public And Read Aloud.

NOTE: Bidders are invited to attend a pre-bid conference to begin at 10:00 A.M. on Tuesday, July 29, 2003 at Coventry Elementary School, Principal's Office (see Section 3.0 below).

All Inquiries For Information Should Be Directed To: Cathy Hodock, CPPB, VCO, Buyer II,  
Telephone: (757) 890-3680.

SEND BIDS DIRECTLY TO THE ISSUING AGENCY SHOWN ABOVE.

In Compliance With This Invitation For Bids And To All The Conditions Imposed Herein, The Undersigned Offers And Agrees to Furnish The Materials/Service Described At the Prices Indicated On Price Schedule (Section 29.0).

Name and Address of Firm:

\_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_

By: \_\_\_\_\_

Signature in ink

\_\_\_\_\_

Title: \_\_\_\_\_

Telephone No.: (\_\_\_\_) \_\_\_\_\_

Print/Type Name: \_\_\_\_\_

Facsimile No.: (\_\_\_\_) \_\_\_\_\_

Federal Tax ID#: \_\_\_\_\_

**1.0 PURPOSE:**

It is the express intent of this formal Invitation For Bids (IFB) to acquire the services of a fully qualified Contractor to retrofit cooling tower variable speed drives at various schools in York County, VA for the County School Board of York County, Virginia, hereinafter, the "Owner".

**2.0 SCOPE OF WORK:**

2.1 The successful bidder, hereinafter the "Contractor", shall furnish all equipment, hardware, material, tools, labor, supervision, and insurance required to retrofit cooling tower variable speed drives at Coventry Elementary School, Magruder Elementary School, Tabb Elementary School and Yorktown Elementary School in accordance with the specifications (Section 4.0) and the terms and conditions in this IFB at the prices provided by the Bidder on the Price Schedule (Section 29.0).

2.2 The Contractor shall:

2.2.1 obtain all necessary permits.

2.2.2 supply all necessary hardware and materials needed to complete the retrofit, unless otherwise specifically listed as being supplied by the Owner or others.

2.2.3 complete all work in accordance with all Federal, State, Local and BOCA codes.

2.2.4 contact Mark Tschirhart or John Dunn at 757-898-0345 or 757-898-0499 for any technical questions.

2.3 Work may commence immediately after the contract is awarded and after receiving approval to begin from the Owner's point of contact.

2.4 All work, including commissioning, shall be completed on or before September 30, 2003.

2.5 Flow shall be maintained in the heat pump condensing loops at all times. The cooling tower pumps shall be available at all times.

**3.0 PRE-BID CONFERENCE:**

Bidders are invited to attend a pre-bid conference to begin at 10:00 a.m. on Tuesday, July 29, 2003 at Coventry Elementary School, Principals Office, 200 Owen Davis Boulevard, Yorktown, Virginia 23693. Following completion at Coventry Elementary School, the conference will then proceed to Tabb Elementary School, Yorktown Elementary School and Magruder Elementary School, if necessary.

#### 4.0 SPECIFICATIONS:

##### 4.1 Tabb Elementary School:

###### Part 1 – GENERAL SPECIFICATIONS

###### 4.1.1 RELATED INFORMATION

The nameplate information for the tower is:

Tower: EVAPCO model no. ATW138A2 serial no. 950266

Motor: 30 HP, 460VAC, 3 Phase

###### 4.1.2 SUMMARY OF WORK

Contractor shall replace the existing single speed fan motor and motor controller with a new premium efficiency TEFC motor and an electronic variable speed drive. Contractor shall supply and install the motor and the variable speed drive motor controller and associated conduit and wiring. Contractor shall replace the fan shaft bearings and fan belt. Contractor shall perform a factory-authorized startup of the variable speed drive and perform startup of the cooling tower to check for proper operation.

###### 4.1.3 SEQUENCE OF OPERATION

Variable Speed Drive Fan:

The magnetic variable speed motor controllers shall control the speed of the cooling tower fan in order to match the load on the HVAC system. The installed Novar brand building automation system shall start/stop the fan and provide a 0-10 VDC signal proportional to the temperature of the heat pump condensing loop. The new variable speed drive motor controller will adjust the speed of the fan according to the input signal.

###### Part 2 – PRODUCTS

###### 4.1.4 MANUFACTURERS

- A. Toshiba
- B. General Electric

###### 4.1.5 EQUIPMENT

- A. Toshiba Electronic Variable Speed Drive Motor Controllers or equal as determined by the

Owner's Points of Contact. Each drive must meet the following specifications:

1. The drive shall be an AC adjustable speed driver, for HVAC applications.
2. The drive shall be a PWM (Pulse Width Modulated) transistorized inverter using IGBTs and must be fully digital.
3. The drive shall have a NEMA 1 metal enclosure. Plastic shall not be acceptable.
4. The drive shall be suitable for an ambient temperature of 0-104°F.
5. The drive shall accept the following frequency command signals: 0 to 10 Vdc (Input

- impedance  $Z_{in}:33k\Omega$ ), 4 to 20mA ( $Z_{in}:500\Omega$ ).
6. The drive shall be capable of setting both upper and lower limit frequencies.
  7. The drive shall be capable of PID set point control and line speed trim.
  8. The drive shall be able to start and stop from a two-wire control (dry contacts), floating-point control, keypad, and serial interface.
  9. The drive shall have adjustable input and output terminal response time selections to prevent noise effects and chattering
  10. The drive shall have an adjustable retry function after a fault. Both number of attempts (at least 10) and time between (1-10 sec).
  11. The drive shall have an analog input filter adjustment to limit the effects of noise on the control signal.
  12. The drive shall permit switching between local/remote operation as well as manual/auto "on the fly."
  13. The drive shall have a damper permissive circuit. This circuit shall turn on dampers prior to engaging the motor and turn off dampers after disengaging the motor.
  14. The drive shall have the following user selectable contingencies in the event of loss of analog control signal while the drive is running before loss:
    - Run at the user set lower frequency limit.
    - Run at the user set upper frequency limit.
    - Trip with a signal loss fault.
    - Run at user selected percentage of the last valid frequency signal.
  15. The drive shall be equipped with both local/remote and manual/auto keys for source selection of speed control and run control respectively on touchpad.
  16. The drive shall be equipped with a quick setup key to allow rapid start-up.
  17. The drive shall have the capability of storing customized user settings.
  18. The drive shall have adjustable UL listed electronic overload protection (10%-100%).
  19. All drives 25HP and above shall be equipped with either 3% impedance DC link reactors or 3% AC input line reactors.
  20. The drive shall have external fault input.
  21. The drive shall be capable of resetting faults remotely and locally.
  22. The drive shall be programmable to alert the following alarms: Over torque, Inverter overload, Motor overload, Inverter overheat, Undercurrent/Overcurrent, Communication error, Cumulative timer, Executing retry.
  23. Protection against input transients, short circuit, ground fault, over-temperature, under voltage shall be provided.
  24. The drive digital display shall be capable of displaying the following: frequency, % current, current amps, input and output % voltage, input and output voltage in volts, RPM, GPM, input and output Watts, torque, input reference signal, elapsed time, kWh, MWh.
  25. The drive shall have 2 programmable analog outputs with the following choices: output current, DC bus voltage, torque current, excitation current, PID feedback value, input power (watts), output power (watts). These outputs shall provide a 4-20 ma signal to the

building automation system.

26. The drive shall include 1 N.O., 1 N.C. relay for fault indication.
  27. The drive manufacturer shall guarantee the operation of the drive against failure due to defects for 30 months after shipment or 24 months of service whichever comes first with factory start-up, 18/12 otherwise.
  28. The drive shall have a door interlocked breaker that will disconnect all input power from the drive and all internally mounted options. The circuit breaker handle shall be through-the-door type and be padlockable in the off position.
  29. The drive shall have isolated, 3 contactor bypass capability.
- B. General Electric severe duty, premium efficiency, 30 HP, 460 VAC, 3 Phase TEFC motor, suitable for inverter duty, or approved equal as determined by the Owner's Points of Contact.

#### 4.2 Coventry Elementary School:

##### Part 1 – GENERAL SPECIFICATIONS

#### 4.2.1 RELATED INFORMATION

The nameplate information for the tower is:

Tower: EVAPCO model no. LSWA-87B serial no. 881-696

Motor: Magnetek part no: 8353562-40 30 HP, 460 VAC, 3 Phase, Y182JM frame

#### 4.2.2 SUMMARY OF WORK

Contractor shall replace the existing two-speed fan motor and motor controller with a new premium efficiency TEFC motor and an electronic variable speed drive. Contractor shall supply and install the motor and the variable speed drive motor controller and associated conduit and wiring. Contractor shall perform a factory-authorized startup of the variable speed drive and perform startup of the cooling tower to check for proper operation.

#### 4.2.3 SEQUENCE OF OPERATION

Variable Speed Drive Fan:

The magnetic variable speed motor controllers shall control the speed of the cooling tower fan in order to match the load on the HVAC system. The installed Novar brand building automation system shall start/stop the fan and provide a 0-10 VDC signal proportional to the temperature of the heat pump condensing loop. The new variable speed drive motor controller will adjust the speed of the fan according to the input signal.

##### Part 2 – PRODUCTS

#### 4.2.4 MANUFACTURERS

- A. Toshiba
- B. General Electric

#### 4.2.5 EQUIPMENT

Toshiba Electronic Variable Speed Drive Motor Controllers or equal as determined by the Owner's Points of Contact. Each drive must meet the following specifications:

1. The drive shall be an AC adjustable speed driver, for HVAC applications.
2. The drive shall be a PWM (Pulse Width Modulated) transistorized inverter using IGBTs and must be fully digital.
3. The drive shall have a NEMA 1 metal enclosure. Plastic shall not be acceptable.
4. The drive shall be suitable for an ambient temperature of 0-104°F.
5. The drive shall accept the following frequency command signals: 0 to 10 Vdc (Input impedance  $Z_{in}$ :33k $\Omega$ ), 4 to 20mA ( $Z_{in}$ :500 $\Omega$ ).
6. The drive shall be capable of setting both upper and lower limit frequencies.
7. The drive shall be capable of PID set point control and line speed trim.
8. The drive shall be able to start and stop from a two-wire control (dry contacts), floating-point control, keypad, and serial interface.
9. The drive shall have adjustable input and output terminal response time selections to prevent noise effects and chattering
10. The drive shall have an adjustable retry function after a fault. Both number of attempts (at least 10) and time between (1-10 sec).
11. The drive shall have an analog input filter adjustment to limit the effects of noise on the control signal.
12. The drive shall permit switching between local/remote operation as well as manual/auto "on the fly."
13. The drive shall have a damper permissive circuit. This circuit shall turn on dampers prior to engaging the motor and turn off dampers after disengaging the motor.
14. The drive shall have the following user selectable contingencies in the event of loss of analog control signal while the drive is running before loss:
  - Run at the user set lower frequency limit.
  - Run at the user set upper frequency limit.
  - Trip with a signal loss fault.
  - Run at user selected percentage of the last valid frequency signal.
15. The drive shall be equipped with both local/remote and manual/auto keys for source selection of speed control and run control respectively on touchpad.
16. The drive shall be equipped with a quick setup key to allow rapid start-up.
17. The drive shall have the capability of storing customized user settings.
18. The drive shall have adjustable UL listed electronic overload protection (10%-100%).
19. All drives 25HP and above shall be equipped with either 3% impedance DC link reactors or 3% AC input line reactors.
20. The drive shall have external fault input.
21. The drive shall be capable of resetting faults remotely and locally.
22. The drive shall be programmable to alert the following alarms: Over torque, Inverter overload, Motor overload, Inverter overheat, Undercurrent/Overcurrent, Communication error, Cumulative timer, Executing retry.

23. Protection against input transients, short circuit, ground fault, over-temperature, under voltage shall be provided.
  24. The drive digital display shall be capable of displaying the following: frequency, % current, current amps, input and output % voltage, input and output voltage in volts, RPM, GPM, input and output Watts, torque, input reference signal, elapsed time, kWh, MWh.
  25. The drive shall have 2 programmable analog outputs with the following choices: output current, DC bus voltage, torque current, excitation current, PID feedback value, input power (watts), output power (watts). These outputs shall provide a 4-20 ma signal to the building automation system.
  26. The drive shall include 1 N.O., 1 N.C. relay for fault indication.
  27. The drive manufacturer shall guarantee the operation of the drive against failure due to defects for 30 months after shipment or 24 months of service whichever comes first with factory start-up, 18/12 otherwise.
  28. The drive shall have a door interlocked breaker that will disconnect all input power from the drive and all internally mounted options. The circuit breaker handle shall be through-the-door type and be padlockable in the off position.
  29. The drive shall have isolated, 3 contactor bypass capability.
- B. General Electric severe duty, premium efficiency, 30 HP, 460 VAC, 3 Phase TEFC motor, suitable for inverter duty, or equal as determined by the Owner's Points of Contact.

#### 4.3 Magruder Elementary School:

##### Part 1 – GENERAL SPECIFICATIONS

#### 4.3.1 RELATED INFORMATION

The nameplate information for the tower is:

Tower: EVAPCO model no. LSWA-20AA2 serial no. 970573

Motor: 30 HP, 460 VAC, 3 Phase

#### 4.3.2 SUMMARY

Contractor shall replace the existing two-speed fan motor and motor controller with a new premium efficiency TEFC motor and an electronic variable speed drive. Contractor shall supply and install the motor and the variable speed drive motor controller and associated conduit and wiring. Contractor shall perform a factory-authorized startup of the variable speed drive and perform startup of the cooling tower to check for proper operation.

#### 4.3.3 SEQUENCE OF OPERATION

Variable Speed Drive Fan:

The magnetic variable speed motor controllers shall control the speed of the cooling tower fan in order to match the load on the HVAC system. The installed Novar brand building automation

system shall start/stop the fan and provide a 0-10 VDC signal proportional to the temperature of the heat pump condensing loop. The new variable speed drive motor controller will adjust the speed of the fan according to the input signal.

## Part 2 – PRODUCTS

### 4.3.4 MANUFACTURERS

- A. Toshiba
- B. General Electric

### 4.3.5 EQUIPMENT

Toshiba Electronic Variable Speed Drive Motor Controllers or equal as determined by the Owner's Points of Contact. Each drive must meet the following specifications:

1. The drive shall be an AC adjustable speed driver, for HVAC applications.
2. The drive shall be a PWM (Pulse Width Modulated) transistorized inverter using IGBTs and must be fully digital.
3. The drive shall have a NEMA 1 metal enclosure. Plastic shall not be acceptable.
4. The drive shall be suitable for an ambient temperature of 0-104°F.
5. The drive shall accept the following frequency command signals: 0 to 10 Vdc (Input impedance  $Z_{in}$ :33k $\Omega$ ), 4 to 20mA ( $Z_{in}$ :500 $\Omega$ ).
6. The drive shall be capable of setting both upper and lower limit frequencies.
7. The drive shall be capable of PID set point control and line speed trim.
8. The drive shall be able to start and stop from a two-wire control (dry contacts), floating-point control, keypad, and serial interface.
9. The drive shall have adjustable input and output terminal response time selections to prevent noise effects and chattering
10. The drive shall have an adjustable retry function after a fault. Both number of attempts (at least 10) and time between (1-10 sec).
11. The drive shall have an analog input filter adjustment to limit the effects of noise on the control signal.
12. The drive shall permit switching between local/remote operation as well as manual/auto "on the fly."
13. The drive shall have a damper permissive circuit. This circuit shall turn on dampers prior to engaging the motor and turn off dampers after disengaging the motor.
14. The drive shall have the following user selectable contingencies in the event of loss of analog control signal while the drive is running before loss:
  - Run at the user set lower frequency limit.
  - Run at the user set upper frequency limit.
  - Trip with a signal loss fault.
  - Run at user selected percentage of the last valid frequency signal.
15. The drive shall be equipped with both local/remote and manual/auto keys for source selection of speed control and run control respectively on touchpad.
16. The drive shall be equipped with a quick setup key to allow rapid start-up.



17. The drive shall have the capability of storing customized user settings.
  18. The drive shall have adjustable UL listed electronic overload protection (10%-100%).
  19. All drives 25HP and above shall be equipped with either 3% impedance DC link reactors or 3% AC input line reactors.
  20. The drive shall have external fault input.
  21. The drive shall be capable of resetting faults remotely and locally.
  22. The drive shall be programmable to alert the following alarms: Over torque, Inverter overload, Motor overload, Inverter overheat, Undercurrent/Overcurrent, Communication error, Cumulative timer, Executing retry.
  23. Protection against input transients, short circuit, ground fault, over-temperature, under voltage shall be provided.
  24. The drive digital display shall be capable of displaying the following: frequency, % current, current amps, input and output % voltage, input and output voltage in volts, RPM, GPM, input and output Watts, torque, input reference signal, elapsed time, kWh, MWh.
  25. The drive shall have 2 programmable analog outputs with the following choices: output current, DC bus voltage, torque current, excitation current, PID feedback value, input power (watts), output power (watts). These outputs shall provide a 4-20 ma signal to the building automation system.
  26. The drive shall include 1 N.O., 1 N.C. relay for fault indication.
  27. The drive manufacturer shall guarantee the operation of the drive against failure due to defects for 30 months after shipment or 24 months of service whichever comes first with factory start-up, 18/12 otherwise.
  28. The drive shall have a door interlocked breaker that will disconnect all input power from the drive and all internally mounted options. The circuit breaker handle shall be through-the-door type and be padlockable in the off position.
  29. The drive shall have isolated, 3 contactor bypass capability.
- B. General Electric severe duty, premium efficiency, 30 HP, 460 VAC, 3 Phase TEFC motor, suitable for inverter duty, or equal as determined by the Owner's Points of Contact.

#### 4.4 Yorktown Elementary School:

##### Part 1 – GENERAL SPECIFICATIONS

#### 4.4.1 RELATED INFORMATION

The nameplate information for the tower is:

Tower: EVAPCO model no. ATW-91C serial no. 941916-P1

Motor: 20 HP, 460 VAC, 3 Phase

#### 4.4.2 SUMMARY

Contractor shall replace the existing single speed fan motor and motor controller with a new premium efficiency TEFC motor and an electronic variable speed drive. Contractor shall supply

and install the motor and the variable speed drive motor controller and associated conduit and wiring. Contractor shall replace the fan shaft bearings and fan belt. Contractor shall perform a factory-authorized startup of the variable speed drive and perform startup of the cooling tower to check for proper operation.

#### 4.4.3 SEQUENCE OF OPERATION

##### Variable Speed Drive Fan:

The magnetic variable speed motor controllers shall control the speed of the cooling tower fan in order to match the load on the HVAC system. The installed Novar brand building automation system shall start/stop the fan and provide a 0-10 VDC signal proportional to the temperature of the heat pump condensing loop. The new variable speed drive motor controller will adjust the speed of the fan according to the input signal.

### Part 2 – PRODUCTS

#### 4.4.4 MANUFACTURERS

- A. Toshiba
- B. General Electric

#### 4.4.5 EQUIPMENT

Toshiba Electronic Variable Speed Drive Motor Controllers or equal as determined by the York County Schools Points of Contact. Each drive must meet the following specifications:

1. The drive shall be an AC adjustable speed driver, for HVAC applications.
2. The drive shall be a PWM (Pulse Width Modulated) transistorized inverter using IGBTs and must be fully digital.
3. The drive shall have a NEMA 1 metal enclosure. Plastic shall not be acceptable.
4. The drive shall be suitable for an ambient temperature of 0-104°F.
5. The drive shall accept the following frequency command signals: 0 to 10 Vdc (Input impedance  $Z_{in}$ :33k $\Omega$ ), 4 to 20mA ( $Z_{in}$ :500 $\Omega$ ).
6. The drive shall be capable of setting both upper and lower limit frequencies.
7. The drive shall be capable of PID set point control and line speed trim.
8. The drive shall be able to start and stop from a two-wire control (dry contacts), floating-point control, keypad, and serial interface.
9. The drive shall have adjustable input and output terminal response time selections to prevent noise effects and chattering
10. The drive shall have an adjustable retry function after a fault. Both number of attempts (at least 10) and time between (1-10 sec).
11. The drive shall have an analog input filter adjustment to limit the effects of noise on the control signal.
12. The drive shall permit switching between local/remote operation as well as manual/auto “on the fly.”
13. The drive shall have a damper permissive circuit. This circuit shall turn on dampers prior

- to engaging the motor and turn off dampers after disengaging the motor.
14. The drive shall have the following user selectable contingencies in the event of loss of analog control signal while the drive is running before loss:
    - Run at the user set lower frequency limit.
    - Run at the user set upper frequency limit.
    - Trip with a signal loss fault.
    - Run at user selected percentage of the last valid frequency signal.
  15. The drive shall be equipped with both local/remote and manual/auto keys for source selection of speed control and run control respectively on touchpad.
  16. The drive shall be equipped with a quick setup key to allow rapid start-up.
  17. The drive shall have the capability of storing customized user settings.
  18. The drive shall have adjustable UL listed electronic overload protection (10%-100%).
  19. All drives 25HP and above shall be equipped with either 3% impedance DC link reactors or 3% AC input line reactors.
  20. The drive shall have external fault input.
  21. The drive shall be capable of resetting faults remotely and locally.
  22. The drive shall be programmable to alert the following alarms: Over torque, Inverter overload, Motor overload, Inverter overheat, Undercurrent/Overcurrent, Communication error, Cumulative timer, Executing retry.
  23. Protection against input transients, short circuit, ground fault, over-temperature, under voltage shall be provided.
  24. The drive digital display shall be capable of displaying the following: frequency, % current, current amps, input and output % voltage, input and output voltage in volts, RPM, GPM, input and output Watts, torque, input reference signal, elapsed time, kWh, MWh.
  25. The drive shall have 2 programmable analog outputs with the following choices: output current, DC bus voltage, torque current, excitation current, PID feedback value, input power (watts), output power (watts). These outputs shall provide a 4-20 ma signal to the building automation system.
  26. The drive shall include 1 N.O., 1 N.C. relay for fault indication.
  27. The drive manufacturer shall guarantee the operation of the drive against failure due to defects for 30 months after shipment or 24 months of service whichever comes first with factory start-up, 18/12 otherwise.
  28. The drive shall have a door interlocked breaker that will disconnect all input power from the drive and all internally mounted options. The circuit breaker handle shall be through-the-door type and be padlockable in the off position.
  29. The drive shall have isolated, 3 contactor bypass capability.
- B. General Electric severe duty, premium efficiency, 20 HP, 460 VAC, 3 Phase TEFC motor, suitable for inverter duty, or equal as determined by the York County Schools Points of Contact.

#### 4.5 SUBMITTALS:

Contractor shall provide the following items upon completion of work:

- 4.5.1 Product Data for each type of product specified. Include manufacturer's technical Product Data indicating dimensions, capacities, performance characteristics, installation instructions, and startup instructions.
- 4.5.2 Shop drawings from manufacturer detailing equipment assemblies and indicating dimensions, weights, loadings, required clearances, method of field assembly, components, and location and size of each field connection.
- 4.5.3 Maintenance data for the installed equipment to include the operation and maintenance manuals.
- 4.6 BUILDING ACCESS:  
Contractor shall:
  - 4.6.1 Provide notification to the points of contact at least 72 hours prior to commencing any work at the site.
  - 4.6.2 Perform work between the hours of 7:00 AM and 3:00 PM, Monday through Friday when school is not in session. Perform work between the hours of 3:30 PM and 11:00 PM, Monday through Friday and/or at Owner's agreed upon times on weekends when school is in session.
- 4.7 DELIVERY, STORAGE, AND HANDLING:  
Contractor shall:
  - 4.7.1 Coordinate the storage of any materials at the school with the Owner's Points of contact prior to delivering or storing the materials.
  - 4.7.2 Store all equipment and materials inside and protected from weather.
- 4.8 QUALITY ASSURANCE:
  - 4.8.1 Installer Qualifications: Contractor shall engage an experienced electrical contractor and an experienced plumbing contractor.
  - 4.8.2 Contractor shall supply insurance certificates to County of York, Virginia, Central Purchasing Department before commencing work.
  - 4.8.3 All work shall be completed in accordance with the International Mechanical Code and the National Electric Code.
  - 4.8.4 Contractor shall provide all labor and materials necessary to complete the above work in a timely and professional manner.
- 4.9 WARRANTY:

The installed motor and motor controller shall be warranted to be free of defects in workmanship and materials for a period of two years from the date of acceptance. The two-year warranty shall include furnishing parts and labor and providing service, including replacement of equipment and materials. The warranty is not a waiver of Owner's right to seek any available legal or equitable remedy within the applicable statute of limitations period.

#### 4.10 EXECUTION:

##### 4.10.1 DEMOLITION

Contractor shall:

- A. Disconnect and remove the existing motor controller and fan motor. The Owner will disconnect the existing motor controller from the building automation system.
- B. Remove all associated wiring and conduit back to the service disconnect. Dispose of motor controller and all refuse.

##### 4.10.2 INSTALLATION

Contractor shall:

- A. Install the new, severe duty, premium efficiency, TEFC fan motor in the location of the original motor on the tower. The original drive pulley may be reused if undamaged. Replace if damaged or severely worn.
- B. Replace the fan shaft bearings and fan belt.
- C. Install the new electronic variable speed drive motor controller on the wall inside the boiler room off of the gymnasium.
- D. Install conduit and wiring from the existing disconnect to the location of the new variable speed drive motor controller and from the motor controller to the motor.

##### 4.10.3 ELECTRICAL WIRING AND CONNECTIONS

Contractor shall:

- A. Supply power from the existing service disconnect to the new motor controller and connect the motor controller to the motor.
- B. Connect the 0-10 VDC control signal to the motor controller. (The owner will supply the start/stop signal and the 0-10 VDC control signal from the building automation system to the location of the motor controllers.)
- C. Connect electrical components to wiring systems and to ground as indicated and instructed by manufacturer.

- D. Tighten connectors and terminals, including screws and bolts, according to equipment manufacturer's published torque-tightening values for equipment connectors. Where manufacturer's torquing requirements are not indicated, tighten connectors and terminals according to tightening requirements specified in UL 486A.

#### 4.10.4 FIELD QUALITY CONTROL

Contractor shall provide all permits and inspections as required.

#### 4.10.5 COMMISSIONING

Contractor shall:

- A. Start, test, and adjust installed equipment.
- B. Replace damaged or malfunctioning controls and equipment.
- C. Demonstrate proper operation of the installed equipment to the Owner's points of contact.

#### 4.10.6 DEMONSTRATION

Contractor shall Demonstrate and train the Owner's Operations Department maintenance personnel on the installed equipment in the following areas:

- A. Troubleshooting
- B. Servicing
- C. Preventive maintenance

### 5.0 GENERAL TERMS AND CONDITIONS

#### 5.1 MANDATORY USE OF FORM:

All responses to an Invitation for Bids (IFB) must be submitted on and in accordance with this form. If more space is required to furnish a description of the good and/or services offered or delivery terms, bidder may attach a letter hereto which will be made a part of the bid. All bids must be submitted in a sealed envelope plainly marked with the IFB number, date and time of bid opening.

#### 5.2 OPENING DATE/TIME:

Bids and amendments thereto, or withdrawal of bids submitted, if received by the Central Purchasing office after the date and time specified for the scheduled bid opening, will not be considered. It will be the responsibility of bidder to see that its bid is in the Purchasing office by the specified time and date. There will be no exceptions. Date of postmark will not be considered. Phone or telegraphic bids (including FAX) will not be accepted.

#### 5.3 INCONSISTENCIES IN CONDITIONS:

In the event there are inconsistencies between the General Terms and Conditions and the Special Terms and Conditions, if any, and/or other schedules contained herein, the latter two shall take precedence.

5.4 CLARIFICATION OF TERMS:

Questions about the specifications or other solicitation documents, should be directed to the buyer whose name appears on the face of this solicitation. Any revisions to the solicitation will be made only by written addendum issued by the Central Purchasing office.

5.5 TESTING/INSPECTION:

Owner reserves the right to conduct any test or inspection it may deem advisable to ensure that goods and services conform to the specifications.

5.6 INVOICES:

Invoices for goods or services ordered, delivered and accepted shall be submitted directly to the 'INVOICE TO:' address shown on the purchase order or contract. All invoices shall show the Contract number and/or purchase order number. Any payment terms requiring payment in less than thirty (30) days will be regarded as requiring payment thirty (30) days after invoice or delivery/completion, whichever occurs last. However, this shall not affect offers or discounts for payment in less than thirty (30) days.

5.7 DEFAULT:

In the event of a default by Contractor, the Owner reserves the right to procure the goods and/or services from other sources, and hold the Contractor liable for any excess cost occasioned thereby. If, however, public necessity requires the use of materials or supplies not conforming to the specifications, they may be accepted and payment therefore shall be made at a proper reduction in price.

5.8 ETHICS IN PUBLIC CONTRACTING:

By submitting its bid, all bidders certify that its bid is made without collusion or fraud and that it has not offered or received any kickbacks or inducements from any other bidder, supplier, Contractor or subcontractor in connection with its bid, and that it has not conferred on any public employee having official responsibility for this procurement any payment, loan, subscription, advance, deposit of money, services or anything of more than nominal value, present or promised unless consideration of substantially equal or greater value was exchanged.

5.9 ANTI-DISCRIMINATION:

By submitting its bids or proposals, bidder certifies to the Owner that it will conform to the provisions of the Federal Civil Rights Act of 1964, as amended, as well as the Virginia Fair Employment Act of 1975, as amended, and Section 2.2-4311 of the Virginia Public Procurement Act which provides:

In every contract over \$10,000, the provisions of a. and b. below apply:

- a. During the performance of this Contract, the Contractor agrees as follows:

The Contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin, age, disability, or any other basis prohibited by state law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the Contractor. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.

Contractor, in all solicitations for advertisements for employees placed in behalf of Contractor, will state that Contractor is an equal opportunity employer.

Notices, advertisements and solicitations placed in accordance with Federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.

- b. Contractor will include the provisions of a. above in every subcontract or purchase order over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.
- c. In accordance with §2.2-4343.1 of the Code of Virginia, et. seq., the Owner shall not (i) discriminate against a faith-based organization as defined in Code of Virginia section 2.2-4343.1(B) on the basis of the organization's religious character or (ii) impose conditions that (a) restrict the religious character of the faith-based organization, except as provided in subsection F of section 2.2-4343.1 the Code of Virginia, or (b) impair, diminish, or discourage the exercise of religious freedom by the recipients of such goods, services, or disbursements.

5.10 IMMIGRATION REFORM AND CONTROL ACT OF 1986:

Bidder certifies that it does not and will not during the performance of the Contract, violate the provisions of the Federal Immigration Reform and Control Act of 1986, which prohibits employment of illegal aliens.

5.11 INDEMNITY AGREEMENT:

The following shall be deemed incorporated into any contract awarded as a consequence of this bid to the same extent as if fully set forth therein:

Contractor and all subcontractors shall bear all loss, expense (including reasonable attorney's fees) and damage in connection with, and shall indemnify Owner against and save Owner harmless from all claims, demands, and judgments made or recovered against Owner because of bodily injuries, including death at any time resulting therefrom, and/or because of damage to property, from any cause whatsoever, arising out of, incidental to, or in connection with the performance of the Contract whether or not due to any act of its or their employees, servants or



agents and whether or not due to any act of omission or commission, including negligence, but excluding sole negligence, of Owner, its employees, servants, or agents. Compliance by Contractor with the insurance provisions hereof shall not relieve Contractor from liability under this provision.

Should Contractor, or any of its subcontractors use any of Owner's equipment, tools, employees, or facilities, such will be gratuitous and Contractor shall release Owner from and indemnify and save harmless Owner from and against any claims for personal injuries, including death, arising out of the use of any such equipment, tools, employees, or facilities, whether or not based upon the condition thereof or any alleged negligence of Owner in permitting the use thereof.

**6.0 INFORMATION FOR BIDDERS TO PROVIDE SERVICES:**

- 6.1 Award will be made to the lowest responsible and responsive bidder. The quality of the products and services to be supplied, their conformity with the specifications, their suitability to the requirements of the Owner, and the delivery/completion terms will be taken into consideration in making the award.
- 6.2 Cash discounts may be offered by bidder for prompt payment of bills, but such discount will not be taken into consideration in determining the low bidder but will be taken into consideration in awarding tie bids. The discount period will be computed from the date delivery/completion is accepted by Owner or from date correct invoice is received by the consignee, whichever is the later date.
- 6.3 Acceptance of a bid by the County of York, Virginia, Central Purchasing Office, hereinafter "Central Purchasing", is not an order to proceed.
- 6.4 Each bid is received with the understanding that the acceptance in writing by the Owner of the offer to furnish any or all of the equipment and services described therein, shall constitute a contract between the bidder and the Owner, which shall bind the bidder on his part to furnish and deliver the equipment and services bid on at the price(s) stated and in accordance with the conditions of said accepted bid; and the Owner on its part to pay for, at the agreed prices, all services specified and delivered.
- 6.5 All prices and notations must be in ink or typewritten. No erasures permitted. Mistakes may be crossed out and corrections made in ink adjacent and must be initialed and dated in ink by person signing bids.
- 6.6 All bids must be signed with the firm name and be signed by an officer or authorized employee of the firm. In the case of a corporation, the title of the officer signing must be stated and each officer must be duly authorized. In the case of a partnership, the signature of at least one of the partners must follow the firm name using the term "member of the firm" or "general partner". In the case of a limited liability company, the bid must be signed by the manager (if any) or by a member.

- 6.7 Verify your bids before submission as they cannot be withdrawn or corrected after being opened.
- 6.8 If you do not bid, return this sheet and state reason. Otherwise your name may be removed from our mailing list.
- 6.9 The time of proposed completion of the project must be stated in definite terms in Section 28.0.
- 6.10 The Owner reserves the right to reject any and all bids in whole or in part, and to waive any informality or technical defects if, in its judgment, the best interests of the Owner will be served.
- 6.11 Any equipment delivered must be standard new equipment latest model, except as otherwise specifically stated in bid. Where any part or nominal appurtenances of equipment is not described, it shall be understood that all the equipment and appurtenances which are usually provided in the manufacturer's stock model shall be furnished.
- 6.12 The Contractor guarantees to save the Owner, its agents or employees, harmless from liability of any nature or kind, for use of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, articles or appliances furnished or used in the performance of the contract, or which the Contractor is not the patentee, assignee or licensee. This clause shall be deemed to be incorporated into any contract awarded as a consequence of this bid.

7.0 AWARD AND EXECUTION OF CONTRACT:

Award of Contract:

The contract will be awarded or the bids rejected as soon as reasonably possible, but not later than sixty (60) days after the date of opening bids, unless the period for acceptance is otherwise extended at request of Owner and agreed to in writing by the bidder, or bidders.

Form of Contract:

An example of the proposed contract format is enclosed. Both parties shall execute this contract prior to approval by the County Attorney.

Entering Contract:

Upon award of the Contract to a bidder, such bidder shall enter into the Contract by signing the Contract and by furnishing the Certificate(s) of Insurance as prescribed, which are required to be procured by the Contractor within ten (10) calendar days after the date of the award or within such further time as the Owner may allow.

No contract shall result from the submission of any bid and no liability shall accrue with respect thereto until a written contract and accompanying documents have been fully and completely executed on the part of the successful bidder and the Owner.

Execution of Documents:

All documents which the bidder is required to execute shall carry the signature of the president of the corporation, the corporate seal and shall be attested by the secretary of the corporation provided, however, if the board of directors of a corporation authorizes another officer to act for the corporation, then a sealed and attested copy of such authorization shall accompany the signature of such other officer. In the case of an individual, the individual to be bound shall sign; and in the case of a partnership, the signature of a partner shall bind the partnership; and in the event of a limited liability company, a member (or the manager, if any) shall sign.

Subcontracts:

Before making any subcontract, the Contractor must submit a written statement to the Owner, giving the name and address of the proposed subcontractor, the portion of the work and materials which he is to perform and furnish and a statement in writing from such subcontractor that he waives all rights to assert any claims, actual and/or consequential against the Owner allegedly arising from or growing out of any delays in the work schedule or any failure of the Contractor to pay such subcontractor any sums owed by the Contractor to such subcontractor.

If the Owner finds that the proposed subcontractor is qualified, he will so advise the Contractor in writing. The Owner may revoke approval of any subcontractor only for good cause. Notice of such revocation of approval will be given in writing to the Contractor by the Owner, and all work by said subcontractor shall immediately cease. If the Owner determines for good cause that a subcontractor is not qualified, Owner shall so notify Contractor, and Contractor shall not thereafter enter into any subcontract with the subcontractor in connection with the contract.

Separate Contracts:

The Owner reserves the right to let other contracts in connection with the project, the work under which will proceed simultaneously with the execution of this Contract. The Contractor shall afford other separate contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work and the Contractor shall take all reasonable action to coordinate his work with theirs. If the work performed by the separate contractor is defective or so performed as to prevent the Contractor from carrying out his work according to the plans and specifications, the Contractor shall immediately notify the Owner upon discovering such conditions. Upon receiving notification, the Owner shall take such appropriate steps as are necessary to allow the Contractor to carry out his work under this Contract, and appropriate extensions of time and change orders shall be given to the Contractor for any delays and extra costs caused by the separate contractor's failure of proper performance.

**8.0 CHANGE ORDERS:****Additional Work**

Before any work under this agreement shall qualify as additional work, the Contractor shall notify the Owner and the Owner's Engineer in writing of his intention to treat certain work, if performed, as additional work and his reasons therefore. If written notice is not given, no claim for additional work will be honored. Notice by Contractor shall not be construed as proving the validity of the claim.

**Execution of Change Orders**

When the Owner agrees that particular work identified by the Contractor's written notice is additional work, or when the Owner, Owner's Engineer, and Contractor otherwise conclude mutually that a change in the terms of the Agreement is necessary, the parties will execute a written Change Order specifying the scope of work and the schedule for both the work and additional payment agreed to by the parties. No oral agreement or directive regarding additional work, or a change in the terms of this Agreement by an employee of the Owner, shall be binding on the Owner.

**9.0 CONTRACTOR'S DUTIES:**

All work performed under this contract shall be performed in accordance with all provisions of the specifications or terms and conditions and scope of work and must be approved in writing by the Owner or his representative. The Contractor shall be responsible for having made a reasonable inspection of the premises prior to the time of bidding and shall be held responsible for all information available through such inspections.

**10.0 MATERIALS:**

All materials supplied by the Contractor under the provisions of these specifications shall be new materials of the kind and character called for by the specifications and scope of work except where otherwise stated herein. Defective equipment or material damaged in the course of installation or tests shall be replaced or repaired in a manner satisfactory to the Owner at no cost to Owner. All materials and equipment to be furnished under the specifications and scope of work shall be the standard product of a manufacturer regularly engaged in the production of such material and shall be the manufacturer's current and most recent standard design.

**11.0 ALTERNATE MATERIALS:**

All materials specified have been determined to have characteristics appropriate for the purposes of this project. Unless the clause "or equal" is used in the specifications or scope of work pertaining to the material or article, only the specified item shall be used. In the event, however, that the clause "or equal" is used in the specifications pertaining to the material or article, the proposed use of an alternate article other than that specified must be submitted for the written approval of the Owner or his representative not less than five (5) days prior to bid opening time and date. No bid will be accepted which proposes to use a non-approved alternate. The Owner shall notify all bidders of any approved alternates by written addendum only. The Owner reserves the right to reject any or all bids.

**12.0 CODES, PERMITS, AND LICENSES:**

All work shall comply with all applicable rules of the current National Fire Codes (published by the National Fire Protection Association), state and local codes and ordinances, and the terms and conditions of the services of any other authorities that may have lawful jurisdiction pertaining to the work specified. None of the terms or provisions of this specification shall be construed as waiving any other rules, regulations or requirements of these authorities. The Contractor shall procure all necessary permits or licenses to carry out his work, and shall pay the lawful fee therefore, as well as for any inspection fee or the cost of any certificate of approval. The Contractor and/or subcontractor shall be responsible for obtaining all necessary building permits. Further, the Contractor shall keep himself fully informed of any County regulation and all state and federal laws which in any manner effect the work herein specified.

In any instance where these specifications or scope of work call for materials for construction of a better quality or larger size than required by the codes, the provisions of the specifications and scope of work shall take precedence. Conversely, should the codes call for better quality or larger size, the codes shall govern.

**13.0 CONTRACTOR'S SITE ACCESS:**

For the performance of the contract, the Contractor will be permitted to occupy such portions of the site as shown on the plans, or as permitted by Owner or his representative. A reasonable amount of tools, materials or equipment for project purposes may be stored in such place, but not more than is necessary to avoid delays in this project or other construction. Waste materials, if any, shall be piled or stocked in such a way as to not interfere with spaces that may be designated to be left free and unobstructed, not to inconvenience other contractors or the Owner.

Upon completion of the work and before acceptance and final payment is made, the Contractor shall clean and remove from the site of work, surplus and discarded materials, temporary structures and debris of every kind. Contractor shall leave the site of work in a neat and orderly condition equal to that which originally existed. Surplus and waste materials removed from the site of the work will be disposed of at locations satisfactory to the Owner.

**14.0 REPLACEMENT OF DAMAGED PROPERTY:**

The Contractor shall replace at his sole expense all property damaged by him including fences, trees, plants, grass, walks, drives, and building surfaces, without limitation.

**15.0 OWNER'S ACCESS:**

The Owner's representative shall at all times have access to the work site. The Contractor shall keep the Owner advised of the progress of the project and shall provide opportunity for the Owner or his representative to inspect each phase of the project. The Contractor shall provide proper and safe facilities for such access and for inspection.

**16.0 SILENCE OF SPECIFICATIONS:**

The apparent silence of these specifications and any supplemental specifications as to any detail or the omission from the specifications of a detailed description concerning any point shall be regarded as meaning that only the best commercial practices are to prevail and that only materials of the highest quality and correct type, size and design are to be used. All interpretation of these specifications shall be made on the basis of this statement.

**17.0 FAMILIARITY WITH WORK:**

The Owner has endeavored to ascertain all pertinent information regarding site conditions, and has, to the best of its ability, furnished all such information to the bidders. Such information is given, however, as being the best factual information available to the Owner, but is advisory only. The Contractor, by careful examination, shall satisfy himself as to the nature and location of the work, the character of equipment and facilities needed preliminary to and during the prosecution of the work, the general and local conditions, and all other matters which can affect the work under this agreement. There shall be no claim allowed for additional compensation to Contractor based upon unanticipated or additional work unless Contractor can show to Owner's satisfaction that such unanticipated or additional work could not have been discovered by reasonable means prior to the bid.

**18.0 SUPERINTENDENCE BY CONTRACTOR:**

The Contractor shall give his personal superintendence to the work or have a competent foreman or superintendent, satisfactory to the Owner, on the work site at all times during progress of the work. The Contractor shall, at all times, enforce strict discipline and order among the workers on the project, and shall not employ on the work any unfit person or anyone not skilled in the work assigned to him.

The Owner reserves the right to suspend the work until such time as a competent foreman or supervisor satisfactory to the Owner is assigned to the project. Contract time shall not be extended for such suspension nor shall the Contractor be entitled to any additional payment of any kind whatsoever as a result of such suspended work.

**19.0 RIGHTS OF VARIOUS INTERESTS:**

Whenever work being done by the Owner's forces, utility companies, or by other contractor's forces is contiguous to work covered by this agreement, the respective rights of various interests shall be established by the Owner, to secure the completion of the various portions of the work in general harmony.

**20.0 CLEAN-UP:**

The Contractor shall leave Owner's property free of all debris and accumulations of material that would be unsightly or interfere with normal operations. Contractor shall remove all trash while work is in progress.

**21.0 FINAL APPROVAL/TESTING:**

All equipment shall be tested and operated upon completion of installation work. Any defects in workmanship, material or equipment shall be corrected by the Contractor before final acceptance will be given by the Owner.

**22.0 CLAIMS:**

Disputes and claims arising under this agreement shall be processed pursuant to Virginia Code Sections 15.2-1245 through 15.2-1248 applied to the Owner mutatis mutandis. The Owner shall give its final decision on any claim of the Contractor within sixty (60) days of the date the claim is submitted to the Clerk of the governing Board of Owner.

**23.0 INSURANCE:**

The Contractor shall carry insurance in the amounts specified below, including the Contractual Liability assumed by the Contractor and shall deliver certificates of insurance from carriers acceptable to the Owner specifying such limits, along with a proper endorsement naming the "County School Board of York County, Virginia, its Officers, Agents and Employees" as Additional Insured on a primary basis (Form No. GL-20-10) on applicable policy(s). The provisions of this paragraph shall be deemed included in the contract as if fully set out therein.

**Worker's Compensation and Employer's Liability**

Coverage A - Statutory Requirement

Coverage B - \$100,000; \$100,000; \$500,000

**Comprehensive Automobile Liability**, including Owned, Non-Owned Hired Car Coverage.

Limits of Liability - \$500,000 Per Occurrence Bodily Injury or Property Damage.

**Commercial General Liability**

Limits of Liability - \$500,000 Per Occurrence Bodily Injury or Property Damage.

Contractual Liability includes the Contractual liability assumed hereunder.

Completed Operations Insurance, to remain in full effect until the date of acceptance of the project by the Owner.

**24.0 WITHDRAWAL OF BIDS DUE TO ERROR:**

Withdrawal of bids for construction contracts shall be considered only in the manner specified in the advertisement for bids in accordance with the provisions of clause (i) Section 2.2-4330(A) of the Code of Virginia. The following procedure shall be used for withdrawal of bids:

The bidder shall submit to the Purchasing Agent a notice in writing of his claim of right to withdraw his bid within two (2) business days after the conclusion of the bid opening procedure.

**25.0 FINAL INSPECTION:**

When the work is substantially completed, the Contractor shall notify the Owner in writing that the work will be ready for final inspection and test on a definite date which shall be stated in such notice and which shall be at least ten (10) days after such notice.

If the work is found to be completed in accordance with the requirements of the Contract, the date of completion will be fixed as the date of final inspection rather than the date of receipt of the written request for the final inspection.

If such inspection reveals work not performed in accordance with the requirements of the Contract Documents, or uncompleted work, the Contractor shall be notified in writing and he shall promptly perform the work required. He shall then request a reinspection which will be made within ten (10) days after receipt of such request. When it has been determined by any reinspection that the work is completed in accordance with the requirements of the Contract Documents, the date of completion will be fixed as the last day of such reinspection.

After the project has been given final inspection and accepted by the Owner, the Contractor shall submit one set of submittals as specified in Section 4.5 above.

**26.0 GUARANTEE:**

All materials and equipment, furnished by the Contractor, and all work involved in this Contract shall be and the same are hereby guaranteed by the Contractor free from defects owing to faulty materials or workmanship for a period of one year after date of substantial completion of the work. All work which proves defective, by reason of faulty material or workmanship within said period of one year, shall be replaced by the Contractor free of cost to the Owner. Nothing herein shall be deemed a waiver of any other available remedy for contract default, or as a waiver of any applicable statutory limitations period, nor as a waiver of any other applicable warranty period.

**27.0 SURETY:**

The Contractor shall furnish Surety Bonds, in the forms provided herein, each in an amount equal to One Hundred Percent (100%) of the contract as security for the faithful performance of this contract and for the payment of persons performing labor on the project under this agreement. The Performance Bond shall also require the Contractor to make good, at his own expense, work due to imperfect materials and workmanship for a period of one year after final acceptance by the Owner. The surety on both bonds shall be a duly authorized Surety Company or Companies satisfactory to the Owner.

**28.0 COMPLETION:**

IF AWARDED THE CONTRACT, THE UNDERSIGNED AGREES TO COMPLETE ALL WORK ON OR BEFORE SEPTEMBER 30, 2003, FOLLOWING ISSUANCE OF A WRITTEN NOTICE TO PROCEED.

STATE YOUR EARLIEST FIRM COMPLETION DATE: \_\_\_\_\_  
THIS MAY BE A FACTOR IN MAKING AN AWARD.



**29.0 PRICE SCHEDULE:**

The bidder agrees to provide the equipment, products and services in accordance with the specifications and terms and conditions provided and incorporated herein at the prices as follows:

	<u>DESCRIPTION</u>	<u>LUMP SUM PRICE</u>
29.1	RETROFIT COOLING TOWER AT COVENTRY ELEMENTARY SCHOOL	\$ _____
29.2	RETROFIT COOLING TOWER AT MAGRUDER ELEMENTARY SCHOOL	\$ _____
29.3	RETROFIT COOLING TOWER AT TABB ELEMENTARY SCHOOL	\$ _____
29.4	RETROFIT COOLING TOWER AT YORKTOWN ELEMENTARY SCHOOL	\$ _____
GRAND TOTAL:		\$ _____

**30.0 SUBSTITUTIONS:**

The bid prices listed in Section 29.0 above are based on furnishing only those materials as indicated in the specifications, including manufacturer name and model numbers. The following substitute materials and/or manufacturers and model numbers are considered by the bidder to be equal in all respects to the specified product and are offered for Owner's consideration. It is understood that no substitutions will be considered by the Owner unless listed below. Bidder must furnish to Owner with this proposal form all data, samples, specifications, etc., required for Owner's evaluation of proposed substitution. It is further understood that no substitutions will be allowed without Owner approval.

<u>Specified Item</u>	<u>Proposed Substitutions</u>	<u>Add to Base Bid</u>	<u>Deduct from Base Bid</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

**31.0 CONTRACTOR REGISTRATION:**

If a contract is for seventy thousand dollars (\$70,000) or more, or if total value of all construction, removal, repair or improvements undertaken by the bidder within any twelve month period is five hundred thousand dollars (\$500,000) or more, the bidder is required under Title 54.1, Code of Virginia (1950), as amended, to be licensed as a "CLASS A CONTRACTOR." If a contract is for fifteen hundred dollars (\$1,500) or more but less than seventy thousand dollars (\$70,000), the bidder is required to be licensed as a "CLASS B CONTRACTOR."

The bidder shall place on the outside of the envelope containing the bid and shall place in the bid over his signature whichever of the following notations is appropriate, inserting his Contractor License Number:

Licensed Class A Virginia Contractor No. \_\_\_\_\_ Class

Licensed Class B Virginia Contractor No. \_\_\_\_\_ Class

If a bidder shall fail to obtain this license prior to submission of bid, the bid shall not be considered.

### 32.0 CONTRACTOR DATA:

All bidders must complete this section and return it with your bids, in order for Owner to complete the evaluation of the bids.

#### 32.1 Experience/Years in Business:

Indicate the length of time you have been in business providing this type of commodity and service: \_\_\_\_years \_\_\_\_months.

#### 32.2 References:

Indicate below a listing of at least three (3) references where you have provided this type of equipment and service recently. Include the dates equipment and services were provided and the name and address of the person we have your permission to contact.

CLIENT	DATE	ADDRESS	PERSON TO CONTACT AND PHONE NUMBER

SAMPLE  
CONTRACT FORM  
CONSTRUCTION RELATED SERVICES CONTRACT

Agreement No. \_\_\_\_\_

This AGREEMENT, dated this \_\_\_\_\_ day of \_\_\_\_\_, 2003, is by and between the COUNTY SCHOOL BOARD OF YORK COUNTY, VIRGINIA (a political subdivision of the Commonwealth of Virginia); hereinafter called the Owner; and \_\_\_\_\_ (a corporation organized and existing under the laws of the Commonwealth of Virginia); hereinafter called the Contractor.

WITNESSETH: The Owner and Contractor, for the consideration stated herein, agree as follows:

Scope of Work:

The Contractor shall perform all required work and shall provide and furnish all labor, materials, necessary tools, expendable equipment and utility and transportation service and all else required to:

RETROFIT COOLING TOWER VARIABLE SPEED DRIVES AT VARIOUS SCHOOLS  
IN ACCORDANCE WITH INVITATION FOR BIDS (IFB) NO. 1337

all in strict accordance with the Plans and Specifications, including any and all Addenda, and in strict compliance with the Contract Documents hereinafter enumerated.

It is understood and agreed that said labor, materials, tools, equipment and service shall be furnished and said work performed and completed under the direction and supervision of the Contractor and subject to the approval of the Owner or its authorized representative.

Guarantee:

All materials and equipment, furnished by the Contractor, and all construction involved in this Contract shall be and the same are hereby guaranteed by the Contractor free from defects owing to faulty materials or workmanship for a period of one year after date of substantial completion of the work. All work which proves defective, by reason of faulty material or workmanship within said period of one year, shall be replaced by the Contractor free of cost to the Owner. Nothing herein shall be deemed a waiver by Owner to seek any available legal or equitable remedy, or remedy provided by any applicable warranty, within the time provided by any applicable statute of limitation or warranty period.

THE BID SCHEDULE OF THE SUCCESSFUL OFFEROR  
SHALL BE CONFORMED AND INSERTED HEREIN  
TO BECOME A PART OF THE COMPLETED CONTRACT DOCUMENTS

Contract Price:

The Owner shall pay the Contractor as just compensation for the performance of this Contract, subject to any additions or deductions as provided in the Contract Documents, the lump sum/grand total prices as contained on the Price Schedule incorporated herein and attached hereto.

The Contract Amount is \_\_\_\_\_  
(\$\_\_\_\_\_) based upon the lump sum/grand total prices extended as herein contained.

Payments:

The Owner will pay the lump sum contract price(s) to the Contractor with thirty (30) days following acceptance of the completion of all work by the Owner.

Time:

The undersigned Contractor agrees to commence work within (10) calendar days after the date of Notice to Proceed and further agrees to complete the Contract Work within the following specified time limits:

ALL CONTRACT WORK SHALL BE FINALLY COMPLETED ON OR BEFORE AUGUST 15, 2003 FOLLOWING ISSUANCE OF A WRITTEN NOTICE TO PROCEED.

THIS AGREEMENT SHALL BE BINDING UPON ALL PARTIES HERETO AND THEIR RESPECTIVE HEIRS, EXECUTORS, ADMINISTRATORS, SUCCESSORS, AND ASSIGNS.

Component Parts of the Contract:

This Contract consists of the following component parts, all of which are hereby made a part hereof as if herein set out in full:

1. Advertisement for Bids
2. Invitation For Bids (IFB #1337), including any and all attachments, addenda, and exhibits
3. Bid Proposal
4. Construction Contract (this document), Agreement No. \_\_\_\_\_
5. Payment Bonds
6. Performance Bonds
7. Certificate(s) of Insurance
8. Contractor's License
9. Notice of Award
10. Notice to Proceed
11. Change Orders (if any)
12. Other Documents as may be required by law or appended hereto
13. ADDENDA: No. \_\_\_\_\_, dated \_\_\_\_\_, No. \_\_\_\_\_, dated \_\_\_\_\_
14. Warranty Documents

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the day and year first above written in (4) counter-parts each of which shall for all purposes be deemed an original.

ATTEST:

\_\_\_\_\_  
NAME

\_\_\_\_\_  
TITLE

COUNTY SCHOOL BOARD OF YORK COUNTY  
OWNER

BY: \_\_\_\_\_  
TITLE: SUPERINTENDENT OF SCHOOLS

ATTEST:

\_\_\_\_\_  
NAME

\_\_\_\_\_  
TITLE

\_\_\_\_\_  
CONTRACTOR

\_\_\_\_\_  
BY

\_\_\_\_\_  
TITLE

CONTRACTOR'S ADDRESS:

\_\_\_\_\_  
TYPE/PRINT NAME

\_\_\_\_\_  
CONTRACTOR'S FEDERAL I. D. NO.

APPROVED AS TO FORM:

\_\_\_\_\_  
COUNTY ATTORNEY

RESERVED FOR CERTIFICATE OF INSURANCE,  
AND ADDITIONAL INSURED FORM GL-20-10  
OR OTHER SATISFACTORY EVIDENCE OF REQUIRED COVERAGE

CONTRACT FORM  
PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS, that

\_\_\_\_\_  
(Name of Contractor)

a \_\_\_\_\_, hereinafter call the Principal,  
(Corporation, Partnership or Individual)

and \_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

County School Board of York County, Virginia

(Name of Owner)

302 Dare Road, Yorktown, Virginia 23692

(Address of Owner)

hereinafter called Owner, in the penal sum of \_\_\_\_\_  
\_\_\_\_\_ Dollars, (\$\_\_\_\_\_), in lawful money of the United  
States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and  
assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain  
Contract with the Owner, dated the \_\_\_\_\_ day of \_\_\_\_\_, 2003, a copy of which is hereto  
attached and made a part hereof for:

RETROFIT COOLING TOWER VARIABLE SPEED DRIVES AT VARIOUS SCHOOLS  
IN ACCORDANCE WITH INVITATION FOR BIDS (IFB) NO. 1337

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, subcontractors,  
and corporations furnishing material for or performing labor in the prosecution of the work provided for in  
such Contract, and any authorized extension or modification thereof, including all amounts due for  
materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment, tools, consumed or  
used in connection with the construction of such Work, and all insurance premiums on said Work, and for  
all labor, performed in such Work whether by subcontractor or otherwise, then this obligation shall be  
void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to Work to be performed thereunder or the Specifications accompanying the same shall in any way affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the Work or the Specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in 4 counterparts each one of which shall be deemed an original, this the \_\_\_\_ day of \_\_\_\_\_, 2003.

ATTEST:

\_\_\_\_\_  
(PRINCIPAL) SECRETARY

\_\_\_\_\_  
SEAL

\_\_\_\_\_  
WITNESS TO PRINCIPAL

\_\_\_\_\_  
ADDRESS

ATTEST:

\_\_\_\_\_  
(SURETY) SECRETARY

\_\_\_\_\_  
SEAL

\_\_\_\_\_  
WITNESS AS TO SURETY

\_\_\_\_\_  
ADDRESS

\_\_\_\_\_  
PRINCIPAL

BY \_\_\_\_\_

\_\_\_\_\_  
ADDRESS

\_\_\_\_\_  
SURETY

BY \_\_\_\_\_

(ATTORNEY-IN-FACT)

\_\_\_\_\_  
ADDRESS

NOTE: Date of Bond must be as to or later than the date of Contract. If Contractor is a Partnership, all partners must execute Bond.

CONTRACT FORM  
PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that

\_\_\_\_\_  
(Name of Contractor)

a \_\_\_\_\_, hereinafter call the Principal,  
(Corporation, Partnership or Individual)

and \_\_\_\_\_  
(Name of Surety)

\_\_\_\_\_  
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

County School Board of York County, Virginia

(Name of Owner)

302 Dare Road, Yorktown, Virginia 23692

(Address of Owner)

hereinafter called Owner, in the penal sum of \_\_\_\_\_  
\_\_\_\_\_ Dollars, (\$\_\_\_\_\_), in lawful money of the United  
States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and  
assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain  
Contract with the Owner, dated the \_\_\_\_\_ day of \_\_\_\_\_, 2003, a copy of which is hereto  
attached and made a part hereof for:

RETROFIT COOLING TOWER VARIABLE SPEED DRIVES AT VARIOUS SCHOOLS  
IN ACCORDANCE WITH INVITATION FOR BIDS (IFB) NO. 1337

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the  
undertakings, covenants, terms, conditions, and agreements of said Contract during the original term  
thereof, and any extensions thereof which may be granted by the Owner, with or without notice to the  
Surety and during the one year guarantee period, and if he shall satisfy all claims and demands incurred  
under such Contract, and shall fully indemnify and save harmless the Owner from all costs and damages  
which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and  
expense which the Owner may incur in making good any default, then this obligation shall be void;  
otherwise to remain in full force and effect.



PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to Work to be performed thereunder or the Specifications accompanying the same shall in any way affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the Work or the Specifications.

PROVIDED, FURTHER, that no default settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in 4 counterparts each one of which shall be deemed an original, this the \_\_\_\_\_ day of \_\_\_\_\_, 2003.

ATTEST:

\_\_\_\_\_  
(PRINCIPAL) SECRETARY

\_\_\_\_\_  
SEAL

\_\_\_\_\_  
WITNESS TO PRINCIPAL

\_\_\_\_\_  
ADDRESS

\_\_\_\_\_  
PRINCIPAL

BY \_\_\_\_\_

\_\_\_\_\_  
ADDRESS

ATTEST:

\_\_\_\_\_  
(SURETY) SECRETARY

\_\_\_\_\_  
SEAL

\_\_\_\_\_  
WITNESS AS TO SURETY

\_\_\_\_\_  
ADDRESS

\_\_\_\_\_  
SURETY

BY \_\_\_\_\_

(ATTORNEY-IN-FACT)

\_\_\_\_\_  
ADDRESS

NOTE:      Date of Bond must be as to or later than the date of Contract. If Contractor is a Partnership, all partners must execute Bond.